REMARKS

Claims 1 to 6 as set forth in Appendix I of this paper are now pending in this case. Claim 3 has been amended as indicated in the listing of the claims.

Accordingly, applicants have replaced the expression *"obtainable"* by --obtained--. No new matter has been added.

The Examiner rejected Claim 3 under 35 U.S.C. §112, ¶2, as being indefinite in light of the expression *"obtainable."* Applicants' amendment removes the term in question. Withdrawal of the respective rejection is therefore respectfully solicited.

The Examiner rejected Claims 1 to 6 under 35 U.S.C. §103(a) as being unpatentable in light of the teaching of ***Blondel et al.*** **(US 4,595,730)**, indicating that applicants' previous remarks on that issue were unpersuasive.[2)] The Examiner asserted in this context, inter alia, that the reference teaches unsaturated monoacids having the formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ *"wherein R^1, R^2 and R^3 are hydrogen and n is 0 to 17"* as preferred. Applicants respectfully disagree.

Blondel et al. mention unsaturated compounds of a formula (1), ie. $R^1R^2C=CR^3-X$ in col. 2, indicated lines 37 to 59, as one type out of a variety of suitable unsaturated compounds. Further types of unsaturated compounds represented by formulae (2) and (3) are described in col. 3, indicated lines 1 to 44, of the reference. Also, with regard to the unsaturated compounds represented by formula (1) $R^1R^2C=CR^3-X$, the reference specifies that R^1 to R^3 represent hydrogen groups or alkyl, aryl, carboxyl, norbornyl, thienyl, pyrrolyl or furanyl, and that the moiety X denotes

(a) $-(CH_2)_n-COOH$ with n = 0 to 17;

(b) $-COO-CH_2-$(oxiranyl);

(c) -Y-(p-COOR-phenyl), wherein Y is -COO-, -CONH-, or a bond, and R is hydrogen, alkyl or aryl;

(d) $-CH_2-OH$;

(e) $-(CH_2)_{n'}$ with n' = 0 to 18; or

(f) -OH.

2) Applicants' paper dated August 31, 2006, which is herewith incorporated by reference.

The respective section of the reference clearly fails to point to preferred unsaturated monoacids having a formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ *"wherein R^1, R^2 and R^3 are hydrogen and n is 0 to 17"* as the Examiner would have it. Such a formula for preferred unsaturated compounds of formula (1) of the reference is also not suggested by the especially favorable examples of such unsaturated compounds which are enumerated in col. 2, indicated lines 60 to 68, of the reference. The especially favorable examples are structurally by far to diverse to direct any particular attention to unsaturated monoacids having the formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ *"wherein R^1, R^2 and R^3 are hydrogen and n is 0 to 17."* In fact, among the 18 groups of acids and esters which are enumerated in that section of the reference, only acrylic acid, vinyl acetic acid and undecylenic acid are representative of the formula $R^1R^2C=CR^3-X$ in which R^1, R^2 and R^3 is hydrogen, and in which X is a group (a). Notably, 10 of the enumerated 18 groups of acids and esters are representatives of the formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ in which R^1, R^2 and/or R^3 differ from hydrogen and in 9 of those representatives n denotes 0. A preference of compounds having a formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ *"wherein R^1, R^2 and R^3 are hydrogen and n is 0 to 17"* is, therefore, clearly not supported by the information which is given in the generic parts of the reference.

Such a preference is also neither taught nor suggested in the context of the illustrative examples which are described in the reference. Those examples illustrate the utilization of

- acrylic acid, ie. formula (1) wherein R^1, R^2 and R^3 are hydrogen, and X is a group (a) with n = 0;
- crotonic acid, ie. formula (1) wherein R^1 is methyl, R^2 and R^3 are hydrogen, and X is a group (a) with n = 0;
- methacrylic acid, ie. formula (1) wherein R^3 is methyl, R^1 and R^2 are hydrogen, and X is a group (a) with n = 0;
- cinnamic acid, ie. formula (1) wherein R^1 is phenyl, R^2 and R^3 are hydrogen, and X is a group (a) with n = 0;
- undecylenic acid, ie. formula (1) wherein R^1, R^2 and R^3 are hydrogen, and X is a group (a) with n = 8;
- tetrahydrophthalic acid anhydride, ie. formula (3) wherein T is absent and Q is oxygen; and
- madic acid anhydride, ie. formula (3) wherein T is CH_2 and Q is oxygen.

Notably, the results which are compiled in the table of Example 13 of the reference indicate that a modification using acrylic acid or methacrylic acid imparts the highest peeling strength to the modified polyamides. The illustrative examples of the reference, therefore, also fail to support the Examiner's position that unsaturated compounds of a formula $R^1R^2C=CR^3-(CH_2)_n-COOH$ *"wherein R^1, R^2 and R^3 are hydrogen and n is 0 to 17"* are disclosed in the reference as preferred.

The Examiner's position that it would have been obvious to employ applicants' hexenoic acid because *"its homologues are clearly taught as preferred unsaturated compounds"*[3] is, in light of the foregoing and to the extent that the Examiner implies that acrylic acid does not fall within the realm of such homologues, not deemed to be well taken. According to the Examiner: *"Homologues are a class of compounds differing only by methylene linkages and possessing similar structures."*[4] Under this definition, acrylic acid is as much a *"homologue"* of hexenoic acid as is undecylenic acid. Moreover, acrylic acid differs from the hexenoic acid which is required in accordance with applicants' invention in the absence of *three* methylene groups. In contrast thereto, undecylenic acid and applicants' hexenoic acid differ in the presence (or absence) of *five* methylene groups. As such, acrylic acid is structurally by far more closely related to applicants' hexenoic acid than undecylenic acid. The Examiner's position that applicants' comparative investigations into the properties of an acrylate modified polyamide and the claimed hexenoic acid modifies polyamide failed to compare the closest embodiment of the prior art is, therefore, not deemed to be well taken.

By comparing their hexenoic acid modified polyamide with an acrylate modified polyamide addressed in the teaching of ***Blondel et al.*** applicants not only investigated the properties of the closest prior art embodiment but also compared their invention with the embodiment of the prior art which excelled in the tests described in the reference. As explained in applicants' previous paper, the polyamide according to applicants' invention which comprised 5-hexenoic acid exhibited a significantly higher MVR than a polyamide containing the aliphatic acid of the same chain length, and the MVR of applicants' polyamide was also significantly higher than the MVR of the polyamide

3) Office action page 3, lines 8 and 9, emphasis added.

4) Office action page 3, lines 9 and 10.

according to the teaching of ***Blondel et al.*** For completeness sake applicants have enclosed herewith a Declaration of Mr. Yamamoto who conceived the tests described in the test report presented with applicants' previous paper and who supervised the experiments. The description of the tests which is given by Mr. Yamamoto in the Declaration shows that the experiments were conducted in a standardized manner so that the only difference between the products and the properties thereof was clearly attributable to the nature of the acid added to the polycondensation. As such, the tests clearly meet the standards for side-by-side investigations. It is therefore respectfully urged that the Examiner favorably reconsider her position that applicants' tests were unsuited to demonstrate the distinct and unexpected advantages which are achieved in accordance with applicants' invention.

It is further respectfully requested that the Examiner favorably reconsider applicants' earlier remarks in light of the foregoing supplemental explanations and the enclosed Declaration, and that the rejection of Claims 1 to 6 under Section 103(a) be withdrawn. Favorable action is respectfully solicited.